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ABSTRACT

This paper discusses how to write effective curriculum documents--teacher's guides, courses of study, program descriptions, how-to-books, or other formal curriculum statements. It is intended to provide guidance for teachers in presenting practical, relevant ideas. Communications for guiding teachers is a fundamentally important task within several contexts including the training of new teachers and the implementation of new ideas and programs. However, no way has been found to record and crystallize teaching for the benefit of beginners. Likewise, there have been many problems in getting teachers to implement new ideas and programs. There are many forms of communication for articulating practices and guiding teachers. One of the most powerful is written communication. Guides to educational practice must communicate conceptions of practice and strategies for implementing the conceptions in light of the known complexities of school and classroom life. The author does emphasize, however, that written communication can only be a starting point for the improvement of practice and should be only one component of programs to improve educational practice. Written guides can help practitioners who are so inclined to begin to generate new practices. Two important issues that affect this communication task are conceptions of educational practice and audience characteristics. Next, the paper analyzes three prevalent forms of curriculum communication--persuasive writing, descriptions of practice, and theory-based prescriptions for practice. Suggestions are offered for the effective use of each of these forms. Written communication can be very effective if the three forms are combined. The paper then discusses topics that must be included in a guide if it is to be effective. Topics include purpose, principle, content and subject matter, and teaching methods. The paper's conclusion contains suggestions for areas of future research. (Author/RM)

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EFFECTIVE COMMUNICATION FOR GUIDING PRACTITIONERS

THEORETICAL AND PRACTICAL PERSPECTIVES

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Effective Communication for Guiding Practitioners
Theoretical and Practical Perspectives

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In "A Barnstorming Tour of Writing on Curriculum" in the 1980 ASCD Yearbook, Decker Walker suggests the importance of communication for guiding teachers and outlines problems faced by writers of curriculum documents--whether teachers' guides, courses of study, program descriptions, how-to-do-it books or other formal curriculum statements. These problems include:

> 1. How to attain sufficient clarity and specificity so that those who are supposed to be instructed by the document know exactly what they are being advised to do;
> 2. How to make the document easy to consult, attractive and helpful so that it will be used;
> 3. How to allow for the variety of settings, personalities, and circumstances for which the document is intended;
> 4. How to maintain the widest possible acceptability so that the document's guidelines will be followed in the school or community (1980, p. 73).

A beginning foray with these seemingly straightforward generally acceptable expectations for curriculum documents suggests that they are in fact problematic as goals. With respect to Problem 1, this author has argued that it is, in principle, not possible to 'attain sufficient clarity and specificity so that those who are supposed to be instructed by the document know exactly what they are being advised to do' (Harris, 1979). With respect to Problem 2, Anderson

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(1981) argues that curriculum documents may be styled, designed, and organized for teachers--and indeed be liked and used by teachers for these reasons--but still be impractical for guiding teachers in their milieus. With respect to Problem 4, investigators have argued that one way to 'maintain the widest possible acceptability' for conceptions and approaches is to formulate them in slogan terms; yet formulation of ideas in slogan terms may render them liable to misinterpretation, misunderstanding, and adoption in form rather than principle (Eastwood, 1964; Komisar and McClellan, 1971). Clearly, the expectations for curriculum documents formulated by Walker are not inappropriate, but rather fraught with associated difficulties. This situation underscores Walker's point (1980) that writing curriculum documents is a 'special and difficult craft' (p. 73). Despite the importance of effective communication for guiding teachers, as Walker comments, "...the amount written about the craft of writing curriculum documents is quite small compared, say, with what has been written about the more specific art of stating behavioral objectives" (Ibid., p. 73). Thus, as he suggests, "Here, perhaps, is an opportunity for professional improvement in the coming years" (Ibid., p. 73).

Codification of educational visions, prescriptions, and practices for the purpose of guiding teachers is fundamentally important in teacher training and the enactment of innovative educational ideas. Olson (1981) shows one example of the consequences of inadequate communication of a doctrine. The teachers he interviewed distorted the Schools Council Integrated Science Project (SCISP) doctrine and reconstructed it in terms that preserved valued elements of their existing patterns of work. He attributes this situation in part to inadequate communication. The project guidelines did not incorporate clear conceptions of goals, teaching methods or assessment strategies; nor did they address how the doctrine could be implemented, given existing institutional goals and

classroom contexts. Anderson (1981) argues that texts which teachers believe are helpful for guiding their practice cannot, in fact, serve this function and attributes this inadequacy to their failure to address the complex structures of actual classroom interactions. The problems in communication for guiding practitioners demonstrated by Olson and Anderson mirror those identified by many other investigators in recent years. The importance of these problems suggests the need to address formally and comprehensively the problems inherent in the goal that a written text guide practice; and to suggest ways in which the potential of written communications as guides for practice can be enhanced.

The purpose of this paper is to address the question: What qualities should characterize a complete and potentially effective written communication for guiding teachers? This question will be addressed in a variety of ways, with the aim of formulating theoretical perspectives and practical prescriptions for use by authors and readers of discourse about education. These perspectives will provide guidance for authors in presenting practice-relevant ideas to teachers in ways that have authentic potential for guidance and for teachers in assessing the potential of the documents to guide their practice.

There are several main thrusts of this paper. First, we will describe the context in which communication for guiding practice becomes a problem and then develop a conception of guiding practice, with an emphasis on two issues: 1) the assumptions associated with the possibility of guiding practice and 2) the role of written communication, as contrasted with other potential modalities of articulation, in such guidance. We will conclude the first section with the argument that written communications can help to create the ambiance within which teachers can begin to try out approaches to education or to modify their practice in directions suggested by alternative conceptions; however,

they typically cannot directly guide practice. We will argue that written communication is only a starting point for improvement in practice and should be only one component of programs to improve educational practice.

Despite these limitations, we contend that written communication can be a powerful tool for guiding teachers, given an appropriate conception of its role: to communicate so effectively that practitioners, who are so inclined, can begin to generate practices consistent with the conception of education. We then explore two important issues that affect this communication task: 1) the influence of views of educational practice, teaching, and specific recommended approaches on how the communication task is seen and 2) the influence of audience characteristics on the effectiveness of communication. Then, we analyze three prevalent forms of curriculum communication--persuasive writing, descriptions of practice, and theory-based prescriptions for practice--to explore what role each might play in guidance. Suggestions are offered for the effective use of each of these forms. We will conclude the second section with the argument that each of these predominant forms of discourse (used to communicate practice prescriptions for teachers) is flawed in serious ways, but that the three forms combined (used in a way labeled Case Rhetoric and infused by an appropriately dynamic and practical sense of the classroom reality of teachers) do have the potential to effectively encode invitations for teachers to modify practice in directions suggested by alternative conceptions. The critical attributes of effective guides for practice lie in two areas: 1) the modes of discourse and 2) the topics that should be addressed. Therefore, we will also identify the topics that should be addressed, as a minimum, in a complete codification of a practice for guiding teachers. A central theme will be the need to address the complexities and dilemmas that teachers confront in their schools and classrooms.

As suggested here, the task of communication for guiding teachers is itself complex. This paper, and the symposium of which it is a part, is intended to begin systematic exploration of the problem of communication, and particularly written communication, of ideas which might guide teachers. Therefore, we will suggest areas for future research on parameters of effective communication.

Context of Communication Problems

Communication for guiding teachers is a fundamentally important task within several contexts. First, it is among the preeminent issues in preparing teachers, but as Lortie (1975) comments, "...no way has been found to record and crystallize teaching for the benefit of beginners" (pp. 58-59). The result, he argues, is that "...to an astonishing degree the beginner in teaching must start afresh, largely uninformed about prior solutions and alternative approaches to recurring practical problems" (pp. 69-70). Along the same lines, Dreeben (1973) contends, "...ideas about the character of the work remain largely in the minds of individual teachers and not part of a publicly shared and reasonably systematic body of knowledge" (p. 469). The problem, he argues, is not a lack of knowledge and techniques, but one of codification:

> ...there probably exists enough knowledge and experience stored in individual heads to provide the basis for sophisticated technologies--were that knowledge and experience ever brought together, codified, tested for efficiency and communicated to teachers both in training programs and on the job (1970, p. 212).

Communication for guiding practitioners also appears to be associated with difficulties in implementing innovative educational ideas and programs. The sixties, particularly, witnessed the development of new programs in almost all of the conventional school subjects (Heath, 1964; Krug, Poster and Gillis, 1970). More recently, other educational approaches have attracted attention

and sustained effort. These approaches include: individualized instruction and independent study; "open education"; and competency-based education, systematic instruction and mastery learning. The new curricula and approaches incorporate new conceptions of subject matter and modes of inquiry considered appropriate for inclusion in school programs, new views of appropriate teacher and student roles, and new requirements for school organization. Therefore, the enactment of these programs and ideas demand new viewpoints and understandings on the part of practitioners, as well as significant changes in traditional teaching strategies.

It is not surprising that investigators have reported difficulties in implementing many of these approaches, as well as the demise of many of them. For example, in a study of several National Science Foundation supported science curricula, including P.S.S.C. Physics and Chem Study, Herron (1971) found that the teachers he interviewed did not adequately understand the views of science or the pedagogical principles associated with the new curricula. Olson (1980) reported similar findings for the Schools Council Integrated Science project. In the area of mathematics, Suydam (1981) cites six major reports which suggest that topics associated with the "new math"--set theory, subtractive division, and other number bases--did not survive in elementary school classrooms. Giacquinta and Kazlow (1979) summarize survey findings that suggest a "critical decline of interest in open education among public school systems" (p. 70). Smith and Keith (1971) report the failure of a school staff to translate conceptions of education (involving individualized instruction and independent study) into actual school programs consistent with these conceptions. Connelly and Ben-Peretz (1980), House (1979), and Giacquinta and Kazlow (1979) all note the problems associated with attempts to implement the innovative approaches generally. Giacquinta and Kazlow (1979) comment, "Serious distortion has been the rule with organizational changes, such as

nongrading and team teaching--actually one can choose an innovation almost at random" (p. 70).

There are different views concerning the criteria used to assess the successful implementation of innovative approaches (Fullen and Pomfret, 1977). Some investigators view success in terms of teachers' adopting the innovations in a form that is faithful to the intentions of developers (Baker, 1973). Others view success in terms of teachers' effective adaptation, translation and modification of programs (Connelly and Ben-Peretz, 1980). Connelly and Ben-Peretz' (1980) view of successful use of educational approaches is associated with the concept of "curriculum potential" first formulated by Ben-Peretz (1975). This concept implies that the 'potential of any given set of curriculum materials emcompasses developer interpretations as well as possible uses that might be revealed by external analysts or implementers.' It implies also that 'curricular materials are more complex and richer in educational possibilities than any list of goals or objectives, whether general or specific, and contain more than an expression of the intentions of the writers.' Investigators who espouse each of these different views concerning the criteria for successful implementation, report teachers' difficulties in using new approaches. What can account for these problems?

The literature is replete with discussions concerning the sources of problems associated with innovative programs. These interpretations can be conveniently grouped into the following generic categories: 1) process of dissemination; 2) receptivity; 3) adequacy of communication; 4) confrontation with political milieu of local community and society-at-large; 5) confrontation with cultural milieu of the school and community; 6) availability of resources, including teachers' skills; and 7) soundness of approach. Each of these sources of problems will be briefly reviewed before focusing more specifically on communication problems.

Much discussion has focused on appropriate processes of dissemination in conjunction with associated views of the role of teachers in innovation. The majority of curriculum projects since the 60's, both in the United States and England, have used some variant of the dissemination model which has been described in terms of: Research, Development, Diffusion, and Adoption (R.D. & D.) (Clark and Guba, 1965; Havelock, 1971; Rogers, 1962). Innovations were expected to be developed in a rational sequence of steps by the projects and transmitted to teachers who were expected to adopt the new approaches in a form consistent with planners' intentions. In the wake of difficulties associated with implementing the projects' approaches, many investigators have criticized the projects' dissemination approaches and views of teachers' roles in innovation. Connelly and Ben-Peretz (1980) argue, "Teachers do not neutrally implement programs; they develop programs of study for their classrooms by adaption, translation and modification of given programs and research findings" (p. 95). Reid (1978) and Olson (1980) argue that teachers maintain functioning systems that effectively balance demands of goals, teaching methods, and school-community cultural milieus and that teachers do and must review and adapt programs to address problems in maintaining or achieving new balances among goals, tasks, and cultures. These investigators, and others, suggest that teachers should be viewed as more active agents in the innovation process and have suggested and implemented approaches that do reflect new views of the relationship among researchers, developers, and teachers. These various approaches include: "collaboration" (Connelly, 1972; Olson, 1980) or mutual deliberation (Schwab, 1973) which emphasize separate but related roles for researchers, developers and teachers; and "action-research" (Elliot, 1974, 1975; MacDonald and Walker, 1976), which emphasizes research as a primary role for teachers.

Discussion has also focused on the need to foster teacher receptivity to

alternative approaches through persuasive or other techniques (Anderson, 1981; Harris, 1979; House, 1979; Walker, 1975). Referring to a set of exhortatory writings, Walker (1975) comments, "Teachers could draw inspiration from (them) to fortify themselves in their resolve to try new and strange practices and to help them persist in spite of opposition and inertia. Emotional appeals are more effective this way than scholarly arguments, which seem cold and dry by comparison"(p. 275). Much additional discussion has focused on the need for effective communication of the concepts and specific approaches associated with the ideas to which teachers may be converted. Since this area is the main focus of this paper, we will postpone discussion of it.

It has been convincingly argued that initial receptivity encounters numerous forces in real school milieus which affect the progress and implementation of alternative conceptions. First, alternative conceptions enter into the political milieus of communities and society-at-large and are subject to debate and negotiation within those milieus (Bernstein, 1975; Becker and McClure, 1978; House, 1974; Ingles, 1974; Kallos and Lundgren, 1976; Kirst and Walker, 1971; Kogan, 1978; MacDonald and Walker, 1976; Reid, 1978, Walker, 1971; Wynne, 1972). Reid (1978), for example, argues that educational policies, which inevitably have social consequences, must be subject to negotiation and deliberation in the political arena.

In addition, innovations inevitably confront the social and cultural milieus of schools and communities (Goodlad, 1975; Guba and Clark, 1975; Hoke, 1972; House, 1979). Investigators have argued that schools are stable functioning systems (Reid, 1978; Sarason, 1971; Shipman, 1974; Wolcott, 1977) and that administrators, teachers, and students within schools have established meaning structures (Rudduck, 1976) and established views about appropriate goals, instructional approaches, and organizational structures (e.g., Olson,

1980; Reid, 1978). Moreover, schools must function within a school-community eco-system (English, 1980; Foshay, 1975; Goodlad, 1975) and respond to views of parents and other concerned community groups.

Many innovations flounder through failure to address problems associated with adaptation in complex, established, functioning social-cultural milieus. In an assessment of science education in the United States, Stake and Easley (1978) contended that a 'common theme was that the social and cultural milieus tended to swamp the NSF science programs.' Based on case studies, Hamilton (1973) and Dickinson (1973) each argued that the introduction of technological changes into schools, without accompanying changes in the cultural milieu--views of administrators, teachers, students, and parents about suitable goals and instructional approaches--failed to result in lasting changes. Thus, investigators have argued that proponents of alternatives must address how their approaches and conceptions fit with established views and practices (Reid, 1978); and that developers should work with teachers and others to identify how they construe their practices and how the innovations might fit with these constructions (Olson, 1977, 1980; Sieber, 1974; Taylor, 1974).

Despite teachers' and others' receptivity to alternative conceptions, the ideas will flounder in practice if resources are lacking. These resources include teachers' knowledge and skills. As noted, most of the alternative conceptions demand new views and understandings about subject-matter and teacher-student roles as well as significant changes in traditional teaching strategies. Both Herron (1971) and Olson (1980) found that teachers in the science projects did not understand the projects' views of "science as inquiry"; and Olson (1980) found that the teachers he interviewed had little sense of how to effectively lead discussions focused on deliberation about scientific issues. Necessary resources also include suitable technologies. For example, Westbury (1973)

has convincingly argued that the individualization and learner-control associated with "open education" cannot be achieved without suitable technologies, such as self-instructional materials, which would leave teachers free to address the inevitable demands of classroom management and non-routine instruction.

Finally, the success of alternative conceptions in practice is associated with their theoretical and practical soundness. As Reid (1978) contends, 'not all innovations are worthy of preservation.' There are many ways in which a proposal can be unsound. Herron (1971), for example, argued that the science curricula he examined had inadequate conceptions of science as enquiry. Among the most important aspects of practical soundness is the need to address the complexities of actual classroom practice. Teaching has been described as characterized by endemic uncertainty (Lortie, 1973, 1975). Aside from the difficulties of implementing any particular conception of education, teachers must "manage" their classrooms. Smith and Geoffrey (1968), for example, argue that one important aspect of teaching is to make and enforce rules, for the purpose of getting work done, in a way that avoids crises in authority. In laying down and enforcing the "rules of the game", teachers must decipher a complex course of social-psychological events; they must manage a variety of such events occurring simultaneously; and they must be prepared for unexpected situations. Jackson (1968) similarly argues that classrooms engender problems of maintaining order, and of keeping pupils interested, at work, and actively involved. In confronting these problems, teachers must react to a rapid flow of events. Anderson (1981) has argued that guides are not practical unless they address the actual structure of classroom lessons, with the need for immediate judgments and replies. These are only some of the demands of classroom practice that investigators have identified; the effectiveness of change

proposals in addressing these and other demands determines, in large part, the success of the proposals in practice.

Each of the factors we have discussed--process of dissemination; teachers' receptivity; confrontation with the political milieu; confrontation with the cultural milieu of the school and community; availability of resources, including teachers' skills; and soundness of approach--are each clearly associated with the difficulties teachers face in implementing innovations. Nevertheless, communication of the innovations is a particularly important problem, since it penetrates the others in several ways. Communication is the vehicle through which receptivity may be sought. Communication is the vehicle for deliberation and negotiation in the political arena (House, 1979) and for sharing meanings in the social-cultural arena (Lighthall, 1973). If the innovation requires new understandings and skills on the part of teachers, communication is one of the vehicles through which these understandings and skills may be acquired. Most importantly, teachers and others must understand the principles and pedagogical structures of programs in terms that address the real complexities of teaching before the programs can be adapted in practice and, thereby, be tested for soundness and generalizability. Before one attributes the failures of an innovation solely to any of the variety of problem areas identified above, it is important to first assess the extent to which the innovation was communicated in such a form that teachers could begin to generate suitable practices.

There are many forms of communication for articulating practices and guiding teachers. Interpersonal communication, in which meanings are reflexively shared and corrected, is perhaps decisive in the successful adaptation of alternative conceptions (Connelly, 1972; House, 1979; Lighthall, 1973; Olson, 1980). Nevertheless, written communication can be a powerful tool for guiding practice. It is an important institutionalized mode for teacher

preparation and the dissemination of innovations. We expect that our analysis of problems related to written communication will also illuminate the character of some problems in interpersonal communication.

What functions should be served by communications for guiding teachers? In general terms, guides for teachers should help them translate conceptions of education into actual school programs. Thus, guides for practice must communicate: 1) conceptions of practice and 2) strategies for implementing the conceptions in light of the known complexities of school and classroom life.

We envision a communicator who aspires to render accessible to teachers the principles and teaching strategies of an educational program. Part of the communicator's task must be to persuade teachers to try the program or to persist in efforts at implementation. We envision a teacher who wishes to understand, in part through written codification, the principles and teaching strategies for an educational program, so he or she can begin to generate appropriate practices. Part of the teacher's task may be to penetrate through persuasive devices to discern the specific ideas and practices which are in fact being recommended. Given these assumptions about the intentions of communicators and teachers, we proceed to address the question: What qualities should characterize a Practical Rhetoric for guiding teachers?

A Conception of Guiding Practice

We will develop a conception of guiding practice to demonstrate the role that written communication might play in guiding teachers and improving educational practice. Can a guide be written that has sufficient clarity and specificity so that those who are supposed to be instructed by the document know exactly what they are being advised to do? Can a guide be written so that a teacher, who is so inclined, can from reading appropriately replicate

the type of practices described? No, these are untenable expectations of a practical guide. Our analysis of what is entailed in the aspiration to guide practice will suggest, in a variety of ways, that written communication can only be a starting point for improvement of practice and should be only one component of programs to improve educational practice.

The possibility of guiding a practitioner, however the criteria for improvement in practice may be defined, depends on four assumptions: first, that there is a measure of regularity and repeatability in human experience so that one can learn from others' experiences; second, that to introduce the novice to the ethos of an activity or to improve the practice of a person already initiated, it is necessary to convey the order, namely the repeatable elements in the practice, as distinguished from mere random events; third, that the repeatable elements are expressible although not necessarily in written precepts; and fourth, that the practitioner's increasing understanding of a practice is associated with improvement in practice. These assumptions raise issues that will focus our development of a conception of guiding practice.

The possibility of guiding a practitioner depends on the assumption that the repeatable elements of a practice are subject to some form of articulation. As Buchler (1961) argues, "To claim...that a particular method is not subject to articulation is virtually equivalent to claiming that the method does not exist" (p. 131). However, written discourse may not be the most effective form in which to articulate a practice. As Buchler notes, "A method is not always most intelligible in terms of direct, definite formulation" (p. 95). There are several prevalent and generic modalities for articulating methods: codification in written discourse, oral interactive communication, written exemplification, demonstration, and communication in non-linguistic symbol

systems. What role does written communication play, as contrasted with these other modalities, in guiding practice? In a brief analysis of each of these modalities, we will argue that for many practices written communication may not be the most effective form of articulation; and for most, it can be productively supplemented by the other modalities.

Written discourse for guiding practice can take a variety of forms ranging from the specific guidelines formulated in cookbooks and car repair manuals to the narrative case studies frequently used in social work, jurisprudence, psychiatry, counseling, and business. Such communications might include: exhortations to adopt a practice; theories intended to provide a principled understanding of practices; or descriptions of presumably effective practices.

Oral interaction communication denotes a process in which meanings are reflexively shared and subject to correction. This mode of communication for guiding practitioners has been institutionalized in apprenticeships, guided internships and workshops. In the education of skilled practitioners, whether craftsmen, physicians, lawyers, teachers, etc., written discourse serves as a useful orientation. However, it must be supplemented by some type of interactive communication, since as Oakeshott (1962) argues, there is a type of knowledge that exists only in practice. He states:

> ...the only way to acquire it...(this type of knowledge) is by apprenticeship to a master - not because the master can teach it (he cannot), but because it can be acquired only by continuous contact with one who is perpetually practicing it. In the arts and in natural science what normally happens is that the pupil, in being taught and in learning technique from his master, discovers himself to have acquired...knowledge...without it ever having been precisely imparted and often without being able to say precisely what it is (p. 11).

Yet, written discourse still serves an important role in guiding practitioners, as contrasted with interactive communication. Internship situations

require intensive educational efforts. It would be impractical and inefficient for all practitioner education to take place in such situations. Moreover, written codification can contribute to the improvement and preservation of effective practice. Lortie (1975), for example, attributes problems associated with professionalization of teaching in part to a failure to develop systems for codifying teaching practices.

> ...we (do not) find (in education) an equivalent to the centuries of codified experience encountered in law, engineering, medicine, divinity, architecture, and accountancy; no way has been found to record and crystallize teaching for the benefit of beginners...what meaningful record exists of the millions of teaching transactions that have occurred since the City on the Hill (pp. 58-59).

Some methods, such as the method of the poet or the method of producing clearly written English, are perhaps best articulated in their written products which we will refer to as "written exemplifications". For example, Burke (1968b) contends that the method of the poet is rendered only approximately by the critical precepts that can be formulated for it. Baker (1973) describes the use of examples to illustrate performance standards for "clearly written English". Despite its value in articulating methods that resist systematic formulation, "written exemplification" has obvious limits as a modality for guiding practice. Examples articulate a method only as clearly as the precepts formulated for them, since each reader can draw his or her own conclusions as to what is exemplified - conclusions that may bear little relationship to the author's intended meanings. Therefore, examples are generally used to illustrate the meaning of formally stated precepts, serving jointly to articulate a method.

Certain aspects of methods which involve craftsmanship, such as weaving, or physical skills, such as skiing, are perhaps better articulated through demonstrations than by written discourse. Skilled practitioners of such

practices may be unable to render explicit the precepts implicit in their practices; and the resulting precepts tend to be cumbersome. Nevertheless, such methods still benefit from attempts to formulate precepts for them. The process of formulating such precepts and the conscious scrutiny of the precepts facilitates improvement and innovation in the practices and increases their potential for widespread dissemination and preservation. As Ryle (1949) comments, "...didactic discourse...can be preserved, as lessons taught by demonstrations and examples cannot be preserved...Thus we can learn both what our grandfathers taught our fathers and what our fathers added to or modified in the lessons they had been taught" (pp. 310-311).

Many methods, such as the method of the dancer or painter, are best expressed in their non-linguistic symbol systems. As Ziman has commented, "...the statements of Art can seldom be written or expressed verbally" (p. 7). However, the significance of symbols is frequently obscure to the untutored observer. Therefore, study of discourse related to technique and aesthetics constitutes part of the artist's training, in addition to the observation and analysis of actual works of art. Other non-linguistic symbol systems, such as the symbols used in road maps, play a different role in guiding practice. They convey precise, but limited, information. As Burke (1968b) commented: "...a map...can help us find our way from one end of the path to another; but it describes little of the experience of the trip" (p. 5). Consequently, travelers generally supplement map-reading with reading travelogues and rehearsing the journey with others who have taken the same route.

This analysis of written discourse, as contrasted with other modalities of articulating practices, suggests that it can play a meaningful role in guiding practice. It permits persons to give permanent expression to the flux of experience and thus create the potential to share it with others. The very

range of meanings that can be expressed by linguistic symbols creates a potential for articulation lacking in precise public languages such as those used in mathematics or map symbols. Moreover, the conscious scrutiny of practices associated with the use of discourse enhances their potential for improvement and preservation. Nevertheless, for many practices, written communication may not be the most effective form of articulation; and for most, it can and should be productively supplemented by other modalities. This is one reason why written communication can be only a starting point for improvement in practice.

The possibility of guiding a practitioner, by means of a written communication, depends on the assumption that there are repeatable elements in human experience, susceptible of articulation in written precepts. What is the nature of these precepts and their relationship to the actual practice for which they are distilled?

First, precepts for practice are generally derived from experience with the practice. Oakeshott(1962) has commented, "The cookery book is...nothing more than an abstract of somebody's knowledge of how to cook; it is the stepchild, not the parent to the activity" (p. 119). In fact, guidelines for practice are apt to be somewhat erroneous without a grounding in experience with the practice. Many investigators have implicitly recognized this point, in recommending that precepts for practice should be formulated through an analysis of masterful practice or successful programs (Dewey, 1929; Dreeben, 1973; Ginther, 1965; Maslow, 1965).

Second, the precepts which can be formulated for a practice are invariably an abridgement of the practice and are rarely exhaustive. Only a part of the knowledge or "know-how" required for successful practice is subject to written codification. These points follow from Oakeshott's (1962) conception of knowledge. He states:

> ...Every science, every art, every practical activity requiring skill of any sort, indeed every human activity whatsoever, involves knowledge...of two sorts, both of which are always involved in any actual activity...The first sort of knowledge I will call technical knowledge... In many activities, this technical knowledge is formulated into rules which are, or may be, deliberately learned, remembered, and, as we say, put into practice; but whether or not it is, or has been, precisely formulated, its chief characteristic is that it is susceptible of precise formulation...The second sort of knowledge, I will call practical, because it exists only in use...it is a characteristic of practical knowledge that it is not susceptible of formulation of this kind. Its normal expression is in a customary or traditional way of doing things, or simply in practice (pp. 7-13).

Oakeshott (1962) points out that "A complete mastery of these principles (precepts) may exist alongside a complete inability to pursue the activity to which they refer" (p. 101). He adds, "...we come to penetrate an idiom of activity in no other way than by practicing the activity; for it is only in the practice of an activity that we can acquire the knowledge of how to practice it" (p. 101). The implications for guiding practitioners are clear. "Practical knowledge" or "know-how" can be expressed only in the practice itself and learned only through experience with the practice. This is another reason why written communication can be, at best, only a starting point for improvement in practice.

The possibility of guiding a practitioner with the aim of improving practice depends on the assumption that a practitioner's increasing knowledge of the precepts for a genre of practice is associated with improvement in practice or successful practice; however, there is an inevitable gap, for a variety of reasons, between knowledge about a practice and improvement in practice. Clearly, knowledge of precepts is, at best, a starting point for a practitioner in beginning to utilize a method. The capacity to formulate accurate propositions about a method does <u>not</u> imply the capacity to implement it. A teacher may be able to recite a plethora of principles about the psychology of learning as well as specific teaching strategies invoked in a program, but be unable to apply these principles and precepts in appropriate situations.

Wherein lies the gap between the ability to formulate accurate principles and precepts and the ability to implement them in practice? First, following Oakeshott's conception of knowledge, written precepts define only "technical knowledge"; "practical knowledge" or "know-how" is expressed only in the practice and learned only through experience with the practice, in the many specific situations to which the principles and precepts relate. The implications are clear. The training of teachers and the introduction of innovative educational ideas cannot stop with mere tentative understanding of prescriptions by teachers; such understandings must be informed and developed by practice. Much recent research on teacher training supports these arguments. Peck and Tucker (1973) report numerous studies which demonstrate that training strategies which emphasize early and extensive experience, (e.g., videotape feedback of actual performance, microteaching with videotape feedback, and utilization of interaction analysis systems to assess actual teaching performance), are more effective for producing desired outcomes than training strategies which emphasize theoretical learning.

Second, improvement in practice depends on factors that go beyond mere tentative understandings of precepts. Personal choice plays a significant role in receptivity to guiding communications and in the implementation of curricula. A teacher can understand the principles and pedagogical structure for a curriculum but reject the program, believing the principles to be inconsistent with personal philosophy, or the pedagogy to be inconsistent with personal comfort. It has been convincingly argued that curricula cannot be effectively implemented without the assent, support and efforts of involved teachers (Doyle and Ponder, 1977). In addition, the nature and significance of the gap between knowledge of practice and improvement in practice is influenced by several other generic factors: 1) the relative proportion of

"technical" and "practical" knowledge associated with the practice; 2) the extent to which competencies are either readily developed (such as typing) or idiosyncratic talents (such as writing poetry); 3) the relative difficulty of developing suitable training programs; 4) the extent to which potential practitioners possess repertoires of relevant knowledge and competencies; and 5) the feasability of implementing the practice in available settings. Problems in each of these areas set fundamental impediments to improvement in practice.

At the beginning of this section, we asked: Can a guide be written that has sufficient clarity and specificity so that those who are supposed to be instructed by the document know exactly what they are being advised to do? Can a guide be written so that a teacher, who is so inclined, can from reading, appropriately replicate the type of practices recommended? Our analysis suggests that these expectations for a written guide are unwarranted. First, written communication is only one of several modalities for articulating practices and for many of them it is not the most effective; for most practices, written communication can be productively supplemented by other modalities. Second, in principle, written codifications are abridgements of practice and inexhaustive for almost all practices, since some of the knowledge required for any practice can be expressed only in the practice itself. Third, there is an inevitable gap, for a variety of reasons, between a teacher's knowledge of a practice and improvement in practice. Therefore, written communication can be, at best, only a starting point for improvement of practice.

Despite these limitations, we contend that written codification can be a powerful vehicle for guiding teachers, given an appropriate conception of its role: to communicate so effectively that practitioners, who are so inclined, can begin to generate practices consistent with recommended conceptions and approaches to education. In the next section, two important issues that

affect this communication task are explored: 1) how authors and readers conceptualize practices and the problem of effective codification and 2) the influence of audience characteristics on the effectiveness of communication.

Factors That Affect the Communication Task (1): Conceptions of Practice

Any practice can be represented and discussed in a variety of ways, depending on authors' values, viewpoints, and conceptions concerning the pertinent practice and its rendering. Moreover, practitioners' responses to representations of practice will be similarly influenced by conceptions of practice. Investigators have identified and discussed prevalent alternative orientations towards educational practice (Eisner and Vallance, 1974; Joyce and Well, 1972). Buchler's (1961) conception of method will be used here to differentiate among genres of practice in terms of their potential for written codification. Then, we will identify generic conceptions of education, teaching, and specific educational practices which correspond to the different genres of practice characterized by Buchler (1961) and illustrate how these different conceptions affect renderings of educational practice for guiding practitioners.

Buchler (1961) contends that there is a "vast world of methodic possibility" (p. 20). His concept of method allows for a tentative differentiation among genres of practices in terms that have implications for their representation. He argues:

> Whoever is said to act methodically (1) chooses a mode of conduct (2) to be directed in a given way (3) to a particular set of circumstances (4) for the attainment of a result...The mode of conduct adopted may consist in (1a) established practice, in (1b) established practice modified by idiosyncratic technique, or in (1c) essentially idiosyncratic, private practice. Whatever procedure is adopted, it may be utilized (2a) strictly and in accordance with prescription, or (2b) loosely, variably,...with a discretionary relationship to prescription, or (2c) uniquely in consequence of predominant reliance on insight. The circumstances under which the procedure is utilized may

> be (3a) definitely classifiable circumstances, or (3b) circumstances ranging from the expected and classified down to the minimal circumstances that would allow the procedure. And the result toward which the activity aims may be (4a) an envisaged or familiar type of result, or (4b) an indefinite result accepted as such in terms of desirability, or (4c) a relatively novel result (pp. 32-33).

Methods that can be classified under the combination (1a), (2a), (3a), and (4a), such as producing automobiles on assembly lines, will be labeled Technologies. In Oakeshott's terms, they have a substantial component of "technical knowledge", susceptible of precise written codification. Methods that can be classified under the combination (1c), (2c), (3b), and (4c), such as writing poetry or scientific enquiry, will be labeled Arts. They require a substantial amount of idiosyncratic knowledge utilized in the service of invention. These methods are "modes of exploration", as distinguished from Technologies which are modes of "regularization" (Buchler, 1961, p. 33). Principles can be formulated for the technical aspects of writing poetry and scientific enquiry, but the critical requirements for these practices defy articulation, since their products are assessed by their originality, rather than by their conformity to a model. Practices that can be classified under the combination (1b), (2b), (3b), and (4b), such as cooking or carpentry, will be labeled Crafts. They require both a significant component of "technical" knowledge as well as practical "know-how" or "tactics" (Buchler, 1961, p. 33) for adapting precepts to the variable characteristics of materials and circumstances.

The key factors that affect the potential for articulation of practices are: 1) the relative degree of "technical" knowledge perceived as involved in effective practice and 2) the "exhaustiveness" of guidelines that can be formulated for them. In general, the guidelines that can be formulated for an activity are either a "complete" set of precepts that guarantee success, if followed, or an "incomplete" set of precepts which cannot guarantee success

(Scheffler, 1960). Rules of spelling, for example, are complete; whereas, rules for playing chess are "incomplete". Such "incomplete" guidelines suggest how to avoid failure and maximize the likelihood of success, but do not assure success. As Scheffler (1960) comments:

> Rules for lion-hunting (we may imagine) tell hunters what they ought to do in trying to bag lions. Such rules cover the details of training, preparation, and the conduct of the hunt...Let us assume that the hunter's knowledge and skills are excellent, that he interprets the rightness of conditions correctly, and that he follows this component set of rules...to the letter. It is still not guaranteed that some lion will be bagged; the lion may bound away at exactly the crucial moment (pp. 70-71).

There is some concensus that teaching is a "practical art", improvable by rules that do not guarantee success (Dreeben, 1970; Lortie, 1975; Scheffler, 1960). Teachers confront endemic uncertainty and unpredictability in both the instructional and management aspects of their work (Nuthall and Snook, 1973; MacDonald and Clark, 1973; Smith and Geoffrey, 1968; Jackson, 1968). Yet, there are distinct and generic conceptions of educational practice and teaching, each of which addresses their complexity in different ways. Educational practice has been studied and described from both a nomothetic perspective, in terms of a search for laws, commonalities, and regularities and an ideographic perspective, in terms of the unique characteristics of educational situations (Von Wright, 1971). The search for controlling laws and replicable instructional designs, a reflection of the nomothetic perspective, has been a prevalent theme in the study and description of educational practice (e.g., Baker, 1973; Resnick, 1972). Yet a concern for studying and characterizing the idiosyncratic, evanescent aspects of educational practice has been a persistent countervailing theme within educational theory to the "technological-scientific" quest for controlling laws, replicable instructional design, and precise

descriptive terminology (Eisner, 1972, 1975, 1976; Huebner, 1966; Kelly, 1975; MacDonald, 1965, 1971; Mann, 1969; McCutcheon, 1976; Shulman, 1970; Vallance, 1976).

Similarly, there are distinct conceptions concerning the nature of teaching. Some view it as a Technology. In principle, efficient, codifiable, replicable means can be designed to achieve specified educational outcomes (e.g., Bereiter and Engelmann, 1966). Others view teaching as an Art. In principle, effective teaching is characterized by the demonstration of attitudes, relationships, and competencies that are essentially idiosyncratic in nature and difficult, if not impossible, to define in any precise manner (e.g., Denison, 1969). Most educators tend to view teaching as a Craft in which teachers must inventively adapt general precepts to each teaching situation.

These three different conceptions of educational practice have important implications for the study, rendering, and form of written guidelines for educational practice. Those who view educational practice in nomothetic terms and teaching as a Technology reflect their orientations in their descriptions of educational practice. For example, Resnick (1972) describes "open classrooms" in a categorized summary of her observations, focusing on observable teacher and student verbal interactions, with the use of literal, conventional terms. This type of description rests in sharp contrast to the bulk of discourse about "open education" which reflects an ideographic view of educational practice and contains figurative language, vivid imagery, and rhetorical devices, designed to evoke the mood and atmosphere of "open" schools (e.g., Weber, 1971). Those who view teaching as a Technology tend to formulate detailed, "cookbook" type guidelines. For example, in their book, Teaching Disadvantaged Children in the Preschool, Bereiter and Engelmann (1966) comment:

> ...this chapter and the ones following are written in a straightforward 'how-to-do-it' manner. It is hoped that the teacher will study and use these chapters as she would a detailed cookbook, recognizing that it is possible to be a very good cook without being an expert in the science of cookery, but that when one is not a thorough master of the science of cookery, it is necessary to stay close to the recipes if one is to avoid failures (p. 104).

Moreover, teachers need not fully understand associated rationales in order to practice effectively.

Those who view teaching as a Craft tend to formulate detailed guidelines in order to illustrate the application of general principles. For example, in their teachers' guide, the authors of the Communication Arts Program II, developed at the Southwestern Cooperative Educational Laboratory (Stone and Taylor, 1970), listed major premises of "experience-centered" education and under each premise listed some teacher behaviors that would reflect the premise. They assume that teachers must develop a sophisticated understanding of general rationales in order to successfully adapt curricula to the idiosyncratic nature of students and teaching-learning situations.

Those who view teaching as an Art tend to communicate approaches to teaching through evocative, persuasive examples. For example, Denison (1969) attempts to convey the essence of teaching at his "First Street School"--capsuled in such phrases as "environment for growth", "freedom from compulsion", "authentic relationships", and "reality of encounter"--through examples and persuasive descriptions. He comments, "Freedom is an abstract and terribly elusive word. I hope that a context of examples will make its meaning clear" (p. 4). He believes that the terms which can be used to characterize an educational environment are, by necessity, elusive. Examples serve only as a starting point from which teachers can experiment with implementing an ethos to which they have been converted. He comments that "there is still a power of persua-

sion in the events themselves, and I can certainly hope that our experience will arouse an experimental interest in other parents and teachers" (Ibid., p. 5).

Exponents of the three different conceptions of educational practice and teaching--Technology, Craft, and Art--would give distinctly different responses to two important questions. These questions are: Can well-established principles be codified and applied by specifiable means to the attainment of predictable and specifiable results? Can one expect the teacher to readily learn to implement the practice or does implementation depend on idiosyncratic talents? This discussion of different conceptions of educational practice and teaching has important implications. Authors and educational practitioners should be aware of the assumptions associated with these different conceptions because the conceptions will be reflected in three ways: forms of communication for guiding teachers; expectations of what can be expected of written communications in conveying reproducible understandings; and expectations about the possibility of widespread improvement in educational practice.

Factors That Affect the Communication Task (2): Audience Characteristics

The nature of audience characteristics also affects the communicative task. Conceptions of education can and must be phrased in terms appropriate to their different potential audiences, such as the "general public" (parents and "concerned citizens") and the "professional" audience of administrators, teachers, and educational researchers and developers. The most critical factors about audiences of teachers, with respect to the form of guides for practice, are: 1) their experience with the practice and the knowledge and competencies they can bring to understanding guiding communications and 2) their familiarity with the terms that can be used to describe practices.

Presumably, it would be most difficult to communicate a practice to an

audience who had limited experience with it and for whom it represented an alien vision, in the sense that it challenged or significantly varied from the accepted and accustomed viewpoints and practices of that audience. As Oakeshott (1962) comments, "...the book speaks only to those who know already the kind of thing to expect from it and consequently how to interpret it" (p. 119). Very frequently, the conceptions of education that educators are most interested in conveying, such as most of the alternative conceptions described earlier, do represent alien visions to teachers. Thus, communication of these conceptions presents special challenges.

Audience characteristics, with respect to experience and familiarity of terms, have a special importance for several aspects of communication. First, the extent to which a conception of practice represents an alien vision for its intended audience will influence the extent to which persuasive devices must be used in guiding practitioners, along with descriptions of the practiced and theory-based prescriptions. Second, the extent to which an audience has previous experience with the practice will influence how examples might be used in guiding practice. For instance, audiences who have had some experience with "open education" might find detailed narrative examples useful to enrich their conceptions and repertoires of strategies, while practitioners who have had no experience with "open education" may find detailed examples, without associated explanations, confusing. In a review of the set of booklets collectively labeled, "Informal Schools in Britain Today", Tanaka (1974) makes this point, as follows:

> The underlying concern that the booklets should not be used as 'how to do it' manuals has led to the use of a great many specific examples, such as descriptions of children and experiences, samples of children's work, excerpts of interviews, records, and diaries, etc....Those who have had some previous introduction to informal ways of working will find the tremendous variety of examples highly stimulating and instructive.

> For others the variety may be bewildering to the extent that they may have difficulty 'seeing the woods for the trees' (p. 54).

Third, the audiences' presumed familiarity with the terms that can be used to describe the practice should influence how terms are presented in the context of a guide. For instance, teachers who have worked in "open" classroom settings may understand, within the context of open education, the practical meaning of phrases such as "an environment for growth" or "freedom for teachers and students alike" (Denison, 1969). However, audiences for whom these phrases are unfamiliar in terms of implications for practice may find detailed descriptions of appropriate activities helpful as illustrations. Denison (1969), as we have noted, used descriptions of his experiences at the First Street School to illustrate what he means by "an environment for growth". Or, technical terms associated with a practice may be unfamiliar to teachers. They must be explicated in the context of their disciplinary origins and illustrated with examples. The influence of teachers' different characteristics on communication for guiding practice is, in fact, pervasive, but has not been the subject of extensive investigation. These comments only skim the surface of issues in this area.

Discourse for Guiding Teachers

What qualities should characterize a complete and potentially effective communication for guiding teachers? We have begun to address this question by exploring two important issues that affect the communication task: 1) how authors and readers conceptualize educational practice and teaching and 2) the influence of audience characteristics on the effectiveness of communication. We will now address this question from another perspective.

Problems of communication for guiding teachers are instances of general problems in elucidating the human communication process. Wiltgenstein's (1963) and Austin's (1965) conceptions of meaning will be elucidated and used as a

framework to characterize prevalent communicative intents in discourse about education. Wittgenstein (1963) argued that a message derives its meaning primarily from the communicative intent of its purveyer and the linguistic context and circumstances of its use. Austin (1963) extended Wittgenstein's suggestion that meaning is a function of the communicator's intentions by classifying linguistic behavior into illocutionary acts, locutionary acts, and perlocutionary acts. The term illocutionary act denotes the action of conveying the meaning of a message in the context of a total linguistic situation. The term locutionary act denotes the action of conveying senses and references. The term perlocutionary action denotes the effects or outcomes sought by the communicator, aside from simply being understood. Illocutionary force is conveyed through cueing of conventional standardized usages and this cueing is done, in part, by using locutionary senses and references appropriate to intended illocutionary forces.

Wittgenstein's and Austin's conceptions of meaning suggest the possibility of differentiating among genres of discourse about education in terms of broad communicative intentions. We contend that communications about education are often taken as guides for practitioners, including many documents labeled as guides, which are inadequate or incomplete for functioning in such a role. Three modes of discourse, representing broad forms of communicative intentions or illocutionary force are frequently employed in efforts to codify educational practice for guiding teachers--persuasive writing, descriptions of practice, and theory-based prescriptions. We will characterize these modes of discourse, explore what role each might play in guiding practitioners, and provide suggestions for their effective use in guiding teachers. We will argue that each of these predominant forms of discourse (used to communicate practice prescriptions for teachers) is flawed in serious ways, but that the three forms combined (used

in a way labeled Case Rhetoric and infused by an appropriately practical and dynamic sense of the classroom reality of teachers) do have the potential to effectively encode invitations for teachers to modify practice in directions suggested by alternative conceptions.

Persuasive Discourse

A fundamental aspect of guiding teachers is to evoke their receptivity to conceptions of education. In discourse about educational practice, authors do and must use rhetorical approaches specifically intended to stimulate teachers' initial experiments with programs and sustain them through the inevitable difficulties of trial efforts. A variety of approaches is used for persuasive purposes. Some of them appeal to reason and convey evidentiary force. These approaches include: associating ideas with a credible source; and presenting either logical arguments, experimental evidence, or descriptive examples. Anderson (1981) has extensively discussed the role of these, and other, persuasive techniques in documents intended to guide teachers. Other approaches are specifically designed to appeal to teachers' emotions or non-rational faculties. Discourse about education is sprinkled with terms that carry the weight of such appeals, such as "Open education" or "Back to the Basics". Expressions of this type have been identified by certain investigators as slogans and analyzed by them according to the logic of slogans (Eastwood, 1964; Komisar and McClelland, 1965; Scheffler, 1960). We will characterize slogan language and explore the role it plays in guiding teachers, since this type of discourse is associated with pervasive problems in guiding educational practice. Although there is no such entity as a slogan utterance, since terms become slogans as a function of their use within certain utterances, we direct our attention to the slogan terms themselves, in order to demonstrate the force of such discourse.

Slogans are brief attention-getting phrases, such as "spiral curriculum", "open education", and "competency-based education", which are embedded within utterances that express ideological positions or general programmatic goals. The linguistic and logical characteristics of slogan languages influence their roles in guides for teachers. The fundamental linguistic characteristic of slogan language is that key and associated slogans for educational approaches are selected, defined and justified to gain widespread acceptance. For example, Eastwood (1964) argued that Bruner established maximum extension for the term "structure" (associated with the "spiral curriculum" concept) by three methods: 1) choosing a term that evocatively expressed pervasive interests in the climate of public opinion during the "post-Sputnik" era; 2) associating the term with a variety of subject-matters (e.g., biology, mathematics, and languages), a series of sub-contexts (e.g., achieving "readiness" for learning and acquisition of new information) and other popular colloquial expressions (e.g., "cultivation of excellence"); and 3) using the phrases evocatively in utterances that lack concrete referents. At the same time that slogan language is evocative, it is also ambiguous because there is no limit to the variety of specific practices that would be consistent with it. Miller (1970), for example, identifies at least three general emphases typically associated with the charge to "Make education relevant": 1) Students should choose and determine what and how they shall learn. 2) Students and teachers should address themselves to an examination of crucial economic, political, and social issues. 3) The content of education should be practically useful in the affairs of life (p. 2). Any of these general emphases would be consistent with the exhortation to "Make education relevant", to say nothing of the variety of consistent specific practices.

There are two fundamental logical characteristics of slogan language

(Komisar and McClelland, 1964). First, slogans, unlike generalizations, do not imply their particulars. Therefore, when they are removed from a particular author's interpretive context, operational strategies and even general ideological emphases become ambiguous. Second, slogans focus attention on what their purveyers view as particular needed emphases in education such as "Teach children, not subjects" and present these emphases in evocative stereotypical positions. The result is that the use of slogan language tends to mask the complexity of viewpoints necessary for an adequate understanding of the dilemmas in educational practice. For instance, the slogan, "Teach children, not subjects", stresses children's unique interests and needs but does not address the role of subject-matter in education. The slogan, "Meet individuals' needs and interests", leaves open the question: Of the multifarious needs of individuals and groups, which should be met, for whom, and by what means?

Slogan language serves important functions in relation to guiding practitioners, by evoking interest, enthusiasm, and support for educational approaches, persuading practitioners to experiment with the approaches; and sustaining veterans in their efforts. In addition, it serves several other related emotive functions. It provides evocative, attention-getting summarizing labels for related educational emphases, such as "open education" or "humanism" (Scheffler, 1960); it serves a social function by providing an evocative rhetoric among participants in a community of discourse (Sharp and Green, 1975); it can be used to justify and legitimate practices viewed as consistent with the emphases it expresses (Kepler and Westbury, 1972); and it dramatically focuses attention on certain educational emphases (Scheffler, 1960).

These benefits, however, may exact a heavy toll. First, slogans do not

clearly and consistently communicate either conceptions of education or operational strategies. The potential consequences are serious. Teachers may be converted to a vaguely defined ideology without the ways and means of implementing it. Programs adopted under recommendations may vary significantly from the programs an author intended to encourage and may, in fact, vary widely among teachers who think they are adopting the same precepts. The slogans may be used in warrants to legitimate activities and programs far removed from those an author intended to encourage or for which a teacher may have gained acceptance. And, slogans may elicit and express a unity of feeling in relation to broadly defined educational emphases which may mask important differences in actual teaching practices. Second, slogan language tends to obscure the complex nature of theoretical and practical problems related to implementing educational approaches. These problems become apparent when teachers strive to implement ideas in real schools, where problems arise related to teachers' roles, students' roles, the role of subject-matter, the claims of society, sustaining motivation, engaging many students in productive learning, and so on.

The use of slogan language in guides for practitioners seemingly poses a dilemma. Slogan language can serve legitimate purposes. But slogan language is ambiguous as to operational strategies and obscures the complex character of theoretical and practical problems that arise in practice. Slogan language appears to guide teachers, but when employed without a clearly locatable practice theory, it can engender serious distortions in practical understanding of the very ideologies to which it attracts faithful adherents. The key to the use of slogans in guides for practitioners is to recognize them for what they are--persuasive rallying symbols for educational emphases and practices, but symbols that are, in fact, ambiguous as to specific school programs and general

emphases. Teachers who intend to translate their persuasions into practice need access to forms of discourse that more adequately communicate educational approaches. We will now explore the role that two other types of discourse might play in communication of educational approaches for the purpose of guiding teachers.

Descriptive Discourse

Descriptions of educational practice are first-order approximations of reality which represent salient characteristics of the educational activities associated with a practice. They may be written retrospectively, by observers or participants or prospectively, with the aim of encoding visions of practices consistent with conceptions of education. Issues associated with description of educational practice have been viewed as fundamental problems in education (Guttchen, 1966; Huebner, 1966; Kelly, 1973). We contend that descriptions of educational practice contain valuable resources for guiding practitioners; but the generally applicable, repeatable aspects of educational practice (which are in fact available within descriptions of practice) that we have emphasized as critical to the effective communication of models of practice, typically remain undisclosed. We will: describe these resources; suggest potential functions of descriptive discourse in guiding practitioners; show its limitations; and suggest ways of enhancing its value in guiding teachers.

A variety of techniques are available for descriptive representation of educational practices, ranging from deeply-textured narrative accounts to categorized descriptive summaries. Examples of narrative accounts abound within the literature of open education.

> ITEM: A junior school in Leicestershire County, serving a working-class and lower-middle-class neighborhood. A class of eight-and-nine-year olds, a happy buzzing group, are returning to their room

> from physical education. A visitor engages the teacher in conversation as the children are putting their shoes and socks back on... The conversation continues for a while. Suddenly the visitor becomes aware that all thirty-eight children are busily at work: some are reading, some are writing essays and poems, some are filling in answers in workbooks; one cluster of youngsters is measuring one another's height and constructing graphs of the results; several others are in the science corner performing an experiment (Silberman, 1970, pp. 234-235).

> ...an old stone building, a wall, a bare playground, but with large tubs for painting. Inside, suddenly all is light, movement, color. The first impression is of lovely things on the eye level of five-year-olds, in corners that invite use and lingering - ...a total pattern of beauty - all for seeing and touching and arranging.... There are precious things, lovely things, colorful things...all laid out for children to see, to handle, to use. In fact, in all corners all the objects seem to be set out with confidence that the children will handle beautiful things carefully and with respect. And also on view are things the children themselves have made...
>
> An environment bursting with invitation, bursting with all the things children are producing right then and there...
>
> The classroom does not contain the class. The children spill all over in little groups in various areas of the room and hall. The teacher is not behind a desk but moving to all the children. The headmistress is in the midst of it all, too, knowing everyone, helping wherever needed. Talk is going on all the time. Words for activities are being sought all the time. The children seem to know just what they want to do, where to get material, how to go about it. The children move with self-assurance, <u>using</u> their school (Weber, 1973, pp. 22-24).

Categorized accounts also appear within the literature of "open education". Resnick (1972), for example, describes "open classrooms" in a categorized summary of her observations, focusing on <u>observable</u> teacher and student verbal interactions, with the use of literal conventional terms.

These and other descriptions of educational practice contain rich <u>resources</u> for guiding teachers. <u>First</u>, descriptions are <u>never purely descriptive</u>, but rather reflect their authors' views, attitudes and conceptions in the form of implicit (in narrative accounts) or explicit (in categorized accounts) <u>analysis</u>, <u>interpretation</u>, and <u>assessment</u>. From a flux of activities, interactions, and milieus, authors <u>select</u> (through conscious or unwitting analysis) certain

aspects for representation. For example, Weber focuses on the beauty of the physical setting and teachers' trust in children. Also, authors interpret, i.e., account for the meaning of what they represent. Weber accounts for the easy flow of children, teachers, and activities in commenting, "The children seem to know just what they want to do, where to get material, how to go about it." Authors also evaluate and assess the worth of what they represent. Weber is clearly enthusiastic about what she has observed, mentioning, "corners that invite use and lingering - a total pattern of beauty - all for seeing, touching, and arranging."

Second, descriptions are selective assertions of meaning, choices of vehicles of expression -- media, foci, and terms -- from a universe of possibilities. In principle, descriptions can only selectively represent, not duplicate, reality (Hempel, 1952). Educational practices can generate many different descriptions, depending on authors' viewpoints and purposes. Conversely, many different scenarios can be constructed to express the same concept, vignettes different in detail, but consistent with the conception. Authors choose among vehicles of expression that reflect and convey their viewpoints concerning: (1) the character of educational practice and teaching; (2) appropriate forms of communication for guiding practitioners; (3) audience characteristics; and (4) the character of the particular practices that are the subject of their descriptions.

Authors choose vehicles of expression of three types: media, foci, and terms. A variety of media are available to represent educational practices, ranging from depiction (the use of devices such as videotapes to portray phenomena) to symbolic encoding in narrative accounts (as in Weber's description) or categorized summary accounts (as in Resnick's description). The author must select and focus on certain aspects of the array of actions, interactions, milieus, etc. that comprise educational practice, and dismiss others. Choices of foci influence how the educational practice will be construed. For example, the bulk of narrative descriptions of "open classrooms" show scenarios of self-motivated

children engaged, as individuals and groups, in a variety of productive activities, relatively free from teachers' external interventions. However, Berlak and her colleagues (1975) describe these classrooms, with an additional focus on teachers' roles in directing and controlling students' activities.

> Mr. Thomas - On Mondays, Mr. Thomas makes explicit the minimum each child should accomplish for the week in a variety of academic areas. Students can choose to go beyond the minimum or to do other activities, including observing pets and discussing football. They can, in general, allocate their own time during the mornings of the entire week. Thus, the observer might, at any given time on any morning, see children working on various academic tasks while others are chatting quietly, painting, or working with a cooking group. On Fridays, Mr. Thomas and perhaps the head check to make sure students have completed their assigned tasks to the adult's satisfaction; those few who have not will either confer with the teacher or be sanctioned (pp. 225-226).

In this description, children do make choices and decisions about learning and standards -- but these teachers also exert control in these areas. Thus, the example conveys teacher activities that suggest complex parameters of decision-making and practice in relation to control of learning, motivation for learning, and standards for achievement. Through their choices of foci, Berlak and her colleagues suggest parameters of teacher decision-making and activity that are not apparent in most of the other narrative descriptions about "open" classrooms.

Authors also choose among different types of terms: literal ordinary language; the vocabularies of particular disciplines or perspectives, and the inventions of figurative language. Literal ordinary language identifies empirically verifiable or observable facets of reality in phrases that retain their primary menaings; they are part of conventional everyday language and tend to elicit commonly understood meanings. The vocabularies of particular disciplines (such as "concrete" and "formal" operations; "reinforcement", "operant conditioning" and "extinction"; and "role", "deference" and "demeanor") are embedded within disciplinary structures that may be alien to teachers. the same activities described in terms drawn from different disciplines might yield, very different views of the practice. Figurative language and rhetorical devices vividly and suggestively

portray reality by intentionally and inventively deviating from the ordinary form or syntactical relations of words, from their primary meanings, or from ordinary constructions. It is used to capture the atmosphere, mood, and pervasive qualities of educational practice. As noted, authors' choices among vehicles of expression reflect and convey conceptions of educational practice. Resnick's description reflects a nomothetic-Technological orientation in her use of a categorized summary account, focusing on observable, verbal teacher and student interactions, in literal, ordinary language. Weber's description reflects an ideographic-Art orientation in her use of a narrative account, focusing on mood and atmosphere, in evocative imagery.

Third, descriptions of educational practice also reflect teachers' beliefs and conceptions about the practices as well as their specific approaches. For example, Weber describes an environment replete with "lovely things on the eye level of five-year olds", "precious things ... all laid out for children to see, to handle, to use". One way to explain the character of this environment is that it symbolizes in practice the actors' beliefs that children learn through concrete experience in a richly provisioned, appealing setting.

Thus, descriptions of educational practices provide rich resources for understanding the practices: (1) authors' implicit or explicit analyses, interpretations and assessments; (2) authors' views about the practices revealed in their choices of media, foci, and terms; and (3) teachers' views about the practices and their implementation. However, these resources tend to remain undisclosed dimensions of meaning.

Descriptions of educational practices serve important functions. They represent, in first-order approximations, the salient features of the practices. They can serve a persuasive function, particularly if they are embedded within persuasive arguments, or pervaded with evocative imagery, or selectively chosen so as to appeal to their audience. They can serve to exemplify or illustrate terms and general formulations of theories, ideas, and strategies. Finally, they

can be used to develop practice theories through analyses of authors' and teachers' conceptions, meaning structures, and pedagogical approaches. The idea of using descriptions to develop practice theories has its origins in hermeneutics or phenomenology (Van Manen, 1976) and is akin to the work done by Van Manen (1976) and Elliot (1976) in helping teachers self-reflectively analyze the assumptions and meaning structures associated with their routine and taken-for-granted daily routines.

Despite these important functions, fundamental problems are associated with the use of descriptions in guiding teachers. First, descriptions can be inaccurate or inadequate as reconstructions, particularly if they fail to capture pervasive qualities of school life or if they do not incorporate adequately complex conceptions of practice. Berlak and her colleagues (1975), for example, argue that the typical pictures of educational practice in "open" schools are inadequate and incomplete in fundamentally important ways, for they do not present an adequately complex picture of teachers' actual decision-making parameters and interventions. Second, descriptions can be obscure for an intended audience if they contain terms that are unfamiliar to the audience, without further explications. These types of problems can, in principle, be remedied.

However, there are fundamental and inherent inadequacies of descriptive discourse in guiding teachers. As argued, several important types of meaning are available, but generally undisclosed, in descriptions of educational practices: (1) authors' analyses, interpretations and assessments; (2) authors' views about the practices revealed in their choices of media, foci, and terms; and (3) teachers' views about the practices and their implementation. Thus, the rationalized and generally applicable aspects of the practices represented in descriptions are not readily available to teachers in a reading of descriptive discourse. Consequently, teachers may adopt the particular forms portrayed, without a clear understanding of the associated concepts which would help them to identify and envision a variety of other specific forms associated with the educational approaches. In addition,

as a selective assertion of meaning, any piece of descriptive discourse is inevitably incomplete for guiding teachers. Any description presents a limited range of perspectives; it uses vehicles of expression that convey certain important meanings, but inevitably omit others; it presents selected scenarios, but inevitably excludes other potentially instructive vignettes. Moreover, the selected scenarios may present idealized accounts which distort the complex nature of the practices.

Clearly, descriptions of educational practice can be important resources for guiding teachers. However, any one description is likely to convey limited perspectives of an educational practice. Moreover, descriptive discourse, read apart from other forms of discourse, is inadequate to the communicative tasks of guiding teachers. We contend that descriptions will be most useful to teachers if they are read in conjunction with: (1) other descriptions of the same practice which might show multiple facets of the practice and (2) communications that explicitely formulate the generally applicable aspects of the practice. Moreover, authors can use knowledge of the analysis presented here to improve their selection of media, foci, and terms for conveying their conceptions of teaching. Teachers can use knowledge of these analytical devices to read descriptions with greater critical acumen, to discern implications for their practice.

Theoretical Discourse

Theories do have the potential to communicate the generalized principles for practice which are fundamentally important in guiding teachers, yet, as we argued, not readily available in descriptive discourse, Any theory is a general representation of phenomena. We will characterize four important types of theory -- explanatory theories, doctrines, applied theories, and practice theories -- in relation to their potential role in guiding teachers and in relation to strategies for effective expression.

Explanatory theories are conceptual frameworks, such as Piaget's theory of cognitive development, which are intended to provide persuasive explanations for prob-

ematic aspects of reality (Kaplan, 1964). Typically, explanatory theories are associated with experimental or pragmatic validation designed to provide persuasive supporting evidence. This evidence may be developed within a paradigm drawn from the natural sciences which emphasizes the quest for law-like propositional statements (Hempel, 1952; Kerlinger, 1973) or within paradigms increasingly viewed as more appropriate for the social sciences which emphasize the quest for statements rich in detail and the sense of complex human encounter (e.g., Von Wright, 1971). The explanatory theories that education borrows from the various social sciences tend to be expressed in technical terms which have special and conventional meanings within research traditions. Yet, the terms and the constructs to which they refer may be alien to teachers and thus become barriers to understanding the theories (Hempel, 1952; Scheffler, 1960).

Explanatory theories serve important functions in guiding teachers. They can persuade teachers to reflect upon their own experiences and interventions in their frameworks. The two main sources of persuasive power for explanatory theories are: (1) explanatory constructs which resonate with teachers' experience (Vallance, 1976) and (2) experimental evidence which supports the conceptual frameworks (Ziman, 1968). Explanatory theories can provide frameworks for understanding and interpreting educational reality. Moreover, they can suggest to inventive practitioners potentially fruitful educational interventions. However, they do not directly communicate or entail operational strategies.

Doctrines are rationalized and codified systems of values and beliefs about the means and ends of education. These systems vary in scope, ranging from encompassing views, such as the orientations characterized by Eisner and Vallance (1976), to more limited doctrines, such as those which focus on the proper character of social studies education in relation to views about society (Oliver and Shaver, 1966). Doctrines, by contrast with explanatory theories, are typically justified by either sustained arguments (of varying logical rigor) and persuasive exhortations. They tend to be expressed in characteristic

idioms. For example, proponents of a "self-actualization" orientation to education, such as Phenix (1971) and Greene (1971), tend to draw their language from the characteristic discourse of humanism, existentialism, and existential psychology. These idioms, like the technical terminology in which explanatory theories are expressed, take on conventional meanings for those steeped in the doctrines. However, for those not versed in the idioms, both the terms and the constructs expressed through them may be alien.

Doctrines are critically important bases for educational practice. They can persuade teachers to reflect upon experiences and interventions in their terms and thereby contribute to the persuasive impact of proposals for educational practice. In addition, they can: provide teachers with frameworks for understanding and interpreting educational reality; serve as screens for recommended educational practices; suggest the character of recommended programs; and provide rationales for educational practices. However, like explanatory theories, doctrines do not directly communicate the character of educational strategies.

Applied theories and practice theories do explicitly formulate methods for teaching. They are closely linked since the critical attribute of both is their focus on the invention and articulation of methods for achieving preferred outcomes or conditions. But, there are important differences between them, related to their sources and potential availability for guiding teachers.

Applied theories are principled structures, frequently grounded in explanatory theories, that suggest strategies for attaining certain outcomes. For instance, behavioral learning theory, an explanatory theory of learning (Bandura, 1969; Skinner, 1953) has spawned numerous applications, with associated principled structures, including: programmed learning (Skinner, 1968) and behavioral counseling (Krumboltz, 1966). Such theories are frequently buttressed with research designed to demonstrate the effectiveness of the strategies. Their strength is the potential control and prediction they might permit. However, the validation of important, comprehensive and generally applicable applied theories is elusive in

the area of education, due to the complex character of educational practice (Glaser, 1976). In fact, it is becoming increasingly clear that investigators are unlikely to validate generally applicable strategies for practice, since the context in which the strategies are implemented significantly influences their utility and effectiveness. This view has led to a substantial body of research within what is labeled the Aptitude-Treatment Interaction paradigm. This research assesses generic factors within educational contexts which influence the effectiveness of teaching strategies. It is also becoming increasingly clear that a complex configuration of characteristics in school contexts, which resist measurement or control, affects the value of any applied theory and confounds validation efforts (House, 1978).

Practice theories are rationalized formulations of teachers' educational strategies, recommended on the basis of practical wisdom rather than experimental validation. What aspects of teachers' practices might be codified in practice theories? We suggest that effective codifications of teachers' practices should include: (1) teachers' generalizable strategies, expressed in both general principles and detailed examples; (2) teachers' rationales for the strategies (their personal explanations and doctrines); and (3) teachers' decision parameters for implementing the strategies in actual classrooms. It is particularly difficult to identify and codify teachers' actual decision parameters. Berlak and her colleagues (1975) have codified doctrines for "open education" in a way that we view as a paradigm for adequate practice theory in this area. They conceptualize schooling in terms of a set of fourteen persistent theoretical and practical dilemmas that teachers do in fact resolve in practice, such as "intrinsic motivation vs. extrinsic motivation" or "teachers setting standards for growth and development vs. children setting own standards". In a provocative paper (1975), they analyze teachers' patterns of resolution to some of these dilemmas.

Analyses of teachers' practices should offer a robust area for finding approaches to educational practice, since practitioners do develop approaches

which effectively address their teaching dilemmas. However, practice theories as characterized here are rare in education, due to difficulties in identifying them and codifying them. Despite these problems, we believe that the potential value of practice theories for guiding teachers makes their formulation a task of critical importance. Some strategies are now available for developing and codifying practice theories. As suggested earlier, teachers and analysts can use descriptions as resources to develop practice theories by elicititing: (1) teachers' meanings symbolized in their actions and interactions and the environments they create; (2) generalizable teaching strategies; and (3) meanings conveyed in authors' vehicles of expression used to represent educational practices. Another set of strategies has been used successfully in the area of medical education. Recently, several research groups have used a set of similar approaches to identify the effective and ineffective problem solving strategies of physicians (Elstein, Shulman & Sprafka, 1978; Norman, Barrows, Feighter & Neufeld, 1977). Physicians are videotaped in interactions with patients and then prompted, by a technique labeled Stimulated Recall, to analyze their diagnostic thought processes. The physicians' strategies are then analyzed in relation to accurate diagnoses. The precepts for medical problem solving, derived through these methods, are now being used to improve instruction in medical problem-solving.

Both applied and practice theories can serve important functions in guiding teachers. As distinguished from explanatory theories and doctrines, applied and practice theories do directly suggest strategies that teachers can use to create and maintain educational environments so that the perspectives offered by explanatory theories and doctrines can become the bases for effective practice. It has been contended that the availability and effective expression of such practical approaches will ultimately determine whether teachers are persuaded to experiment with particular educational practices (Doyle and Ponder, 1978).

Each of the four types of theory that we have characterized -- explanatory, doctrine, applied, and practice -- has some unique and distinct characteristice

that affects its function and expression in codifications of educational practice. The four types also have some characteristics in common that affect their potential functions and expression in codifications of practice for guiding teachers.

Practical educational situations are concrete, particular, and complex. Theorists interpretively represent this reality by two techniques -- generalization and selection. They distill from a plethora of particulars certain general aspects of reality, but thereby omit the many particulars that lend meaning to that reality. They select areas for inquiry; and for each area of inquiry, there are different principles of inquiry associated with different theoretical viewpoints. The consequence is that any theory presents a partial view of educational reality (Schwab, 1971).

Despite these limitations, theories do have the potential to formulate some of the understandings that practitioners need as starting points for educational practice. Their value depends, in large part, on how they are expressed. First, two types of translation are recommended for rendering theories more accessible to teachers. Technical language and characteristic idioms can be translated into the vernacular, the everyday language teachers use to describe experience. In addition, concrete descriptive examples can be provided to illustrate the meaning of technical terms, characteristic idioms, or vague terminology. Second, since theories are selective, strategies are needed to remedy the partial view of reality they present. Guides can explicitly identify the segment of reality a particular theory addresses. One strategy would be to present a theory in association with a case description and identify in the case those facets to which it is particularly relevant. Yet, with only one or a few theories, teachers have limited repertoires for understanding and effecting educational reality and may view it in unnecessarily limited terms (Joyce and Wile, 1972; Schwab, 1971). One remedy is for teachers to master a variety of theories so they would have bases for using theories in a multi-faceted approach to understanding educational reality and monitoring their educational interventions.

Still, each of the four types of theory formulates only some of the under-

standings teachers need to implement educational programs. Doctrines provide teachers with value frameworks for understanding educational reality and considering interventions, while explanatory theories provide teachers with constructs (typically associated with experimental or pragmatic validation) for considering interventions. However, neither doctrines nor explanatory theories entail or directly communicate operational strategies. Applied theories and practice theories do explicitly formulate methods for teaching; and practice theories, in particular, have the potential to address the dilemmas and coping strategies that teachers confront in real schools and classrooms., Thus, these four types of theory, in combination, do go some of the distance in communicating the critical parameters of educational practices.

Yet, a fundamental communication problem remains. Any theory, by definition, provides a general representations of reality by suppressing the particulars that characterize any instance of its subject-matter. Teachers, however, must understand general principles and frameworks in light of their potential applications in a variety of concrete situations. Thus, theoretical discourse is seriously flawed for guiding teachers. We will suggest an approach to this communication problem which emphasizes combining theoretical discourse with descriptive discourse in a way labeled Case Rhetoric.

As noted, although theories are potentially applicable accross many situations, the particulars of actual cases modifies their applicability. One approach for addressing this problem is to phrase theories in terms of generic relevant characteristics of the situations to which they are applicable, such as generic student characterics or generic desired outcomes (Hunt and Sullivan, 1974). Yet, such formulations still leave much to be desired, since individuals and situations are endowed with a wide variety of particulars, such that in principle not all relevant particulars can be formulated. We contend that the practical meaning of theories to teachers can be enriched by presenting them in association with cases to which they apply. Clearly, many particular cases could be consistent with any theory. But, if theories

are presented in conjunction with some cases to which they apply, teachers can gain access to some of the rich meanings that become suppressed in the formulation and codification of theories. In this way, teachers can enrich their understanding of theories through access to concrete examples. Conversely, teachers can enrich their understandings of educational reality by viewing it through the lenses of theories. An example of this approach will be given which demonstrates how theoretical and descriptive discourse can be combined in a way that does address the practical dilemmas teachers must address and resolve.

Berlak and her colleagues (1975) formulate an operational doctrine for conceptualizing teachers' decision-making. One category of this doctrine relates to the source of learning decisions. They posit that for teachers in "open" classrooms, there appears to be a simultaneous pull in two directions - toward the teacher making learning decisions and toward children making these decisions. They present a framework to order the complex ways in which this type of doctrinal dilemma can be manifested and resolved, as follows:

> Decisions - not necessarily deliberated - are made about: (1) whether or not a child will study in a given area, (2) what specifically is to be learned within that area, (3) when the task is to begin and when it is to be completed, and (4) how the learner is to proceed with the task. In a given learning situation, the child, or the teacher, or both jointly exercise one or more of these decisions....a teacher can follow different patterns of resolution for different children, and at different times of the year, or for different subjects or learning experiences (pp. 227-228).

This formulation of dilemmas codifies, in our view, an appropriately complex conception of teachers' operational doctrines in general terms. But, the meaning of this doctrine for teachers can be further enriched by focusing it on a description of actual practice, such as the following.

> On Mondays, Mr. Thomas makes explicit the minimum each child should accomplish for the week in a variety of academic areas. Students can choose to go beyond the minimum or to do other activities, including observing pets and discussing football. They can, in general, allocate their own time during the morningsof the entire week. Thus, the observer might, at any given time on any morning, see children working on various academic tasks while others are chatting quietly, painting, or working with a cooking group. On

> Fridays, Mr. Thomas and perhaps the head check to make sure students have completed their assigned tasks to the adult's satisfaction; those few who have not will either confer with the teacher or be sanctioned. In the afternoons the students engage in one of a number of schoolwide 'commitments' or 'minicourses! At 1:00 p. m., they deploy themselves to various locations in the school to join in dance, music, science, 'topic', art, or other activity groups (ibid., p. 226).

With respect to this description, a guide could explicitly focus on those aspects of the description that pertain to learning decisions and state the character of Mr. Thomas' resolutions of the complex dilemmas concerning learning decisions. Thus, Mr. Thomas appears to play the major role in deciding whether children should learn in a given area and what children should learn in a given area. "On Mondays, Mr. Thomas makes explicit the minimum each child should accomplish for the week in a variety of academic areas." By contrast, the children appear to play the major role in deciding when they shall learn. "They can, in general, allocate their own time during the mornings of the entire week." But, from this description, it is not evident who decides how children shall learn, nor is it evident the extent to which Mr. Thomas and the children jointly negotiate learning decisions. Clearly, the ideal case description for this communicative strategy would incorporate and represent all important aspects of the doctrinal dilemma; and this particular description falls short of this ideal.

We have contended that each of the predominant forms of discourse (used to communicate practice prescriptions for teachers) is flawed in serious ways. Persuasive discourse tends to evoke receptivity to educational approaches, but without communicating the principles and operational strategies needed to implement the approaches. Thus, for teachers who wish to translate their persuasions into school programs, persuasive discourse must be supplemented by discourse that does formulate general principles and strategies in terms that begin to address their practical concerns. Theoretical discourse does formulate such general principles, but typically does not adequately communicate the applicability of general principles to the variety of particular cases to which they apply. Descriptive discourse does represent selected instances of practice, but typically does not

adequately communicate the generalizable, repeatable elements which teachers must have, to use the descriptions as guidance for their own particular situations. We have suggested that the three forms combined (used in a way labeled Case Rhetoric and infused by an appropriately dynamic and practical sense of the classroom reality of teachers) do have the potential to effectively encode invitations for teachers to modify practice in directions suggested by alternative conceptions.

Topics Addressed in Codifications of Practice

The critical attributes of effective guides for practice lie in two areas: (1) the modes of discourse and (2) the topics that should be addressed. Therefore, we will also identify the topics that should be addressed, as a minimum, in a complete codification of a practice for guiding teachers. This issue is a critical problem for it relates to the practical validity and completeness of the descriptive discourse and theoretical discourse used to communicate a practice.

The set of topics and sub-dimensions that must be addressed in a complete codification of an educational practice must have the following attributes. (1) It must allow for a comprehensive and inclusive array of sub-dimensions. (2) The set of topics should be relatively value-neutral and thus appropriate as a framework for communication of any type or conception of educational practice. (3) The set of recommended topics must reflect extant understanding of the complex, dynamic realities of schooling. (4) The set of recommended topics must reflect those points where the exigencies of practice and theory have raised particular problems for teachers, such as the problems noted by many investigators of managing relatively large numbers of children, in a relatively confined space, for long-term instruction, with limited resources, competing demands, and reflect the character of the fundamental communicative requirements characterized in this paper, in that they must communicate both conceptions of practice and purposes: developing in children shared norms and values vs. developing subgroup

associated operational strategies.

Ginther(1969) has proposed a set of topics -- Purpose; Principle; Content and Subject-Matter; and Method -- which does meet these criteria. We will explicate these terms and show what might be entailed in addressing each of the topics by using his framework to order the various topics which several other investigators have viewed as critical to address in an adequate characterization of educational practice (Berlak et. al., 1975; Herbert, 1967; Lamm, 1976; Leithwood, 1979; Westbury, 1973). The set of topics and sub-dimentions is schematically summarized in Table 1. We have arrayed the sub-dimensions in two catagories labeled: dynamic schematizations and static schematizations. This categorization reflects a fundamentally important aspect of the sub-dimensions. Namely, Lamm, Westbury, and Berlak each view the teaching task in terms of complex situational decisions reflecting compromises and trade-offs among alternative ideological persuasions and task demands. Their sets of topics are characterized by them in what we view as dynamic terms. By contrast, Leithwood and Herbert each identify important topics that must be addressed in codification of any educational practice, but they do not identify the complex decision parameters that influence instructional choices. Thus, their sets of topics are discussed by them in what we view as static terms.

One topic that must be treated in codification of any educational practice is Purpose. Purpose refers to the aims of an educational endeavor and may vary in generality and scope from the broadest over-riding goals of an endeavor to very specific behavioral outcomes. What might be entailed in a treatment of the purpose(s) of an educational practice? First, 'purpose' should be treated in ideological terms. Lamm, for example, identifies three dimensions of curricular thought that treat 'purpose' in broad ideological terms: Aims in Teaching; Desired Achievements; and Social Interpretation of Instruction. Similarly, two of the instructional dilemmas identified by Berlak pertain, in part, to views of appropriate purposes: developing in children shared norms and values vs. developing subgroup consciousness: and knowledge as public vs. knowledge as personal development.

Purpose should also be treated in terms of the goals and operational objectives associated with a given curriculum or conception of education, as reflected in Leithwood's topic: Objectives.

Another topic that must be treated in the codification of any educational practice is labeled by Ginther as Principle. Principle refers to an individual's source of motivation for involvement in an endeavor. If 'purpose'gives direction to endeavors, 'principle' relates to the critical impetus for engagement in endeavors. What might be entailed in a treatment of the 'principle(s)' of a curriculum or educational practice? The topic of 'principle', like other topics, should be addressed in ideological terms. For instance, Lamm identifies three generic views of the role of motivation in instruction, associated with three different logics of instruction. Views of the role of motivation in instruction have important implications for instructional decision-making. For instance, one of the instructional dilemmas identified by Berlak relates to instructional decision-making associated with views of the sources of motivation: intrinsic vs. extrinsic. Guides for practice should address issues related to the sources of motivation, the types of motivation, the right ways of evoking motivation, and the place of motivation in instruction. These issues should be treated in both ideological and operational terms.

Another topic that must be addressed is labeled by Ginther as Content or Subject-Matter. This topic refers to what is taught and encompasses a wide variety of phenomena such as the content and disciplinary structures of disciplines, physical skills, problem-solving skills, manners, etc. Each of the other investigators also views 'what is learned' as an important topic. What might be entailed in addressing this topic? As with the other topics, 'content' should be addressed from a doctrinal perspective. For instance, a guide might treat issues related to the nature of knowledge. For example, Westbury(1975) identified the obvious instructional implications of two different views of knowledge. He argues:

:A conception of knowledge as a content which can be stored in books which can be

opened for and by students, controls, of course, the goals of the conventional school....The open classroom movement, of course, is an assault on the validity of this conception of knowledge and of methods that have their legitimacy in an image of schooling as information-giving and box-opening"(p. 116). A guide might also treat the function of knowledge in schooling, such as Lamm's topic, Content, which refers to images of the educational value of knowledge. Similarly, one of the dilemmas identified by Berlak pertains to alternative views of the function of knowledge in schooling: knowledge as public vs. knowledge as personal development. The topic 'content' should also be treated in terms of the generic or specific facts, principles, theories, attitudes, or skills that will be the focus of instruction, such as is reflected in Leithwood's topic: Content.

The final dimension that must be treated is Method. As defined by Ginther through examples, 'method' encompasses a very broad array of sub-topics related to the means through which purposes are achieved. The topic includes such factors as the views of teaching and learning associated with operational strategies, as well as the most practical aspects of achieving the purposes of educational endeavors, such as grouping and location for instruction, influence and management strategies, and assessment procedures. What might be entailed in treating 'method'? A guide might codify views of the learner, learning, and appropriate learner activities, as these views might affect operational strategies. Five of the dilemmas identified by Berlak pertain to such issues: childhood unique vs. childhood continuous; whole child vs. child as student; each child unique vs. children having shared characteristics; learning as social vs. learning as individual; and learning as molecular vs. learning as holistic. A guide might also codify views of the school's role with respect to differential treatment of students, application of sanctions, and distribution of goods and resources. for such views are likely to significantly influence instructional choices. Four of the dilemmas identifies by Berlak pertain to such issues; equal allocation of resources vs. differential allocation; expecting self-reliance

of disadvantaged vs. giving special consideration; uniform application of sanctions vs, selective application; and civil liberties vs. in loco parentis. A guide might also codify views of teaching, the teaching role, and teaching tasks as these views affect instructional choices Lamm's demension, Teacher, pertains to the teacher's status. Several other dimensions pertain to views about the relative dominance of the teacher in the instructional situation. Lamm identifies different images of leadership. Berlak identifies two dilemmas related to the source of learning an cassessment decisions: teacher making learning decisions for student vs. students making learning decisions; and teacher setting standards for growth and development vs. children setting standards. Westbury identifies the practical task-demand of 'managing' a class in the interest of task attention and order; management many be secured at the expense of coverage, mastery, or affect. In addition, a guide must communicate a sense of the operational strategies and specific learning experiences viewed as appropriate for achieving the purposes of instruction. Important specific dimensions include: 'influence techniques' (Herbert); forms of teacher discourse and learner activities (Lesson Form-Herbert; Learning Experiences-Leithwood); Grouping and Location for Instruction (Herbert); Instructional Materials and Media (Herbert and Leithwood); and Assessment Tools and Procedures (Leith wood).

The set of topics identified by Ginther -- Purpose; Principle; Content and Subject-Matter; and Method -- does appear to address and perhaps resolve the question: What topics should be addressed, as a minimum, in a complete codification of practice for guiding teachers? We have suggested that it offers a minimum set of generic topics that provides a comprehensive, value-neutral, framework to order a variety of topics suggested by others, as well as to potentially order, as sub-topics, a variety of other currently extant topics as well as those not yet envisioned.

Conclusions and Suggestions for Research

In this paper, we have begun to address in a formal and comprehensive way the problems inherent in the goal that a written text guide practice. Based on our analysis, we have suggested ways in which the potential of written communications for guiding educational practice can be enhanced. We have reached two general conclusions. First, in developing a conception of guiding educational practice, we argued, from a variety of perspectives, that written communication can be only a starting point for improvement of practice. Such communications can help to create the ambiance within which teachers can begin to try out approaches to education or to modify their practice in directions suggested by alternative conceptions; however, they typically cannot directly guide practice. Therefore, written communications should be only one component of programs to improve instruction. Second, in analyzing the role that each of three prevalent modes of discourse--persuasive, descriptive, and theoretical--might play in guiding practice, we argued that each of these predominant forms is flawed in serious ways for communicating practice prescriptions to teachers. We suggested that the three forms combined, used in a way labeled Case Rhetoric and infused by an appropriately dynamic and practical sense of the classroom reality of teachers, do have the potential to effectively encode invitations for teachers to modify practice in directions suggested by alternative conceptions.

As we addressed problems inherent in the goal that a written text guide practice, we began to systematically explore a variety of fundamental problems related to communication, particularly written communication, for guiding teachers. Our analyses suggest a range of areas for future research on parameters of effective communication, as follows.

1. Context of Communication Problems. Communication of educational approaches is one among a set of sources of problems associated with enacting innovative programs. These problem areas include:

(a) process of dissemination; (b) receptivity; (c) confrontation with political milieus of local schools, communities and society-at-large; (d) confrontation with cultural milieus of schools and communities; (e) availability of resources, including teachers' skills; and (f) soundness of approach. Investigators could productively explore how problems in communication of innovations might be disentangled from these other problem areas so that remedies for difficulties in implementation of alternative conceptions of education might be more accurately targeted. We contend that teachers, and others, must understand the principles and pedagogical structures of programs in terms that address the real complexities of teaching before the programs can be adapted in practice, and thereby be tested for soundness and generalizability. Before one can attribute the failure of an innovation solely to any of the variety of problem areas identified above, it is important to first assess the extent to which the innovation was communicated in such a form that teachers could begin to generate suitable practices.

Conversely, investigators might productively address the many ways in which communication problems interpenetrate the other problem areas, such as: (a) the appropriate role in the dissemination process of the various forms of communicative relationships among researchers, developers, and teachers; (b) the role of various communication devices in evoking receptivity to conceptions; (c) the role of communication in deliberative discourse and negotiations within the political area; (d) the role of communication for sharing meanings in the social-cultural arena; and (e) the role of various communication approaches in helping teachers to develop the knowledge and skills required to effectively implement programs.

2. Modalities of Communication for Guiding Practice. Various modalities for articulating practices are available: written discourse, oral interactive communication; demonstrations; written exemplifications; and communication in non-linguistic symbol systems. Investigators could productively explore the appropriate roles in guiding practice of these various modalities in relation to: (a) the character and views of target practices (Is the practice viewed as a Technology, a Craft, or an Art?); (b) the type of competencies required for effective practice (Are they readily accessible to most interested

potential practitioners or are they idiosyncratic, special talents); (c) various audience characteristics, such as their experience with the practice, their familiarity with the terms which can be used to describe the practice, their repertoires of competencies, and their receptivity to the educational approach. Investigators might productively explore, within a variety of research paradigms, the role of each modality, as well as various combinations of modalities, in improvement in different targeted practices, as assessed by teachers' understandings and demonstrated competencies. Different levels of expense and effort are associated with use of the different communication modalities (such as written discourse as compared with internships or workshops) and it would be productive to sort out experimentally the specific roles of the different approaches in improving practices, so that developers and educators might choose the most effective and cost-efficient strategies.

3. Influence of Conceptions of Practice. Authors' conceptions of educational practice, teaching, and the specific practices that are the subjects of their renderings, do and should influence the vehicles of expression--media, foci, and terms--they use to communicate practices for guiding teachers. Investigators could productively develop analytical tools for use in helping authors choose media, foci, and terms so as to more consciously and effectively select vehicles of expression to communicate their conceptions of practice. Educators could also use these tools to enrich their reading of guiding communications, with a view towards eliciting conceptions of practice through an analysis of the meanings conveyed in the authors' choices of vehicles of expression--media, foci, and terms.

4. Audience Characteristics. It is a truism that audience characteristics influence how the communicative task is seen. Yet, the nature of generic teachers' characteristics that might affect guiding communications has not been systematically examined. In this paper, we identified some generic characteristics that might influence the communicative task: (a) audience experiences with the pertinent practices; (b) audience familiarity with the terms which can be used to communicate the practice; (c) audience repertoires of necessary

conceptual understandings and skills; and (d) audience receptivity to experimenting with the approaches, particularly with respect to the extent to which the approaches might be alien visions. Investigators could productively seek to: (a) identify other generic teacher audience characteristics that might influence the communicative task; (b) identify the more specific variants within each generic factors which might influence the communicative task; and (c) explore what influence the generic and specific teacher audience factors will have on the effectiveness for guiding practice of different modalities of communication, different forms of discourse, and different vehicles of expression in descriptions--media, foci, and terms.

5. Persuasive Strategies and Discourse. Eliciting educators' receptivity to alternative conceptions is a fundamentally important aspect of guiding practice. Some modes of persuasion appeal to practitioners' reason and other modes appeal to their emotions. Some modes are based on sound arguments, or sound evidence, or accurate descriptions; while others are based on specious arguments or distorted evidence or idealized, unrepresentative descriptions. Some modes of persuasion, such as the use of slogan language, tend to distort the very conceptions to which they attract followers and thereby imperil effective practical implementation. Investigators could productively explore how various communication devices, which are generally not viewed in terms of their persuasive functions, such as text design and appearance and the use of quotations and citations, actually do serve persuasive functions (Anderson, 1981). Investigators could also productively explore how the wide variety of persuasive devices can be used to effectively guide teachers--namely, to evoke receptivity, without thereby seriously imperiling development by teachers of the reasoned, accurate, and appropriately complex understandings of the practices which are needed for effective implementation.

6. Descriptive Discourse. Descriptions of practice contain rich, but generally untapped, resources, for guiding teachers. Specifically, they convey important meanings about practices in: (A) authors'

implicit analyses, interpretations, and assessments; (b) authors' views about the practices, revealed in their choices of media, foci, and terms; and (c) teachers' views about the practices and their implementation, revealed symbolically in descriptions of actions, interactions, and milieus. Investigators could productively develop analytical tools to further explore these, and other, dimensions of meaning concealed in descriptions. Such tools would help authors to more effectively communicate their conceptions through their descriptive devices and teachers to enrich their reading of descriptions for discerning dimensions of meaning pertinent to their own practice. In addition, descriptions of practice can be one resource for development of practice theories through analysis of authors' and teachers' conceptions and meaning structures and teachers' pedagogical approaches, symbolized in them.

7. Theoretical Discourse. Theories can suggest sound bases for educational practice and theoretical discourse can convey the general, repeatable understandings needed for effective practice. A critical problem is to develop theories of sufficient complexity to adequately address the practical dilemmas teachers confront in enacting conceptions of education. Investigators could productively explore means for identifying and codifying theories--doctrines, explanatory theories, applied theories, and practice theories--that do address these practical dilemmas. Doctrines must formulate not only values and beliefs associate with practices and their implementation, but also value dilemmas which must be resolved. Development of adequate applied theories must emphasize identification of generic aspects related to educational practice--characteristics of students, teachers, and milieus, etc.--which will influence the applicability of general approaches. Moreover, development and codification of practice theories--theories derived from analysis of actual educational practice--is a task of critical importance, for teachers do develop effective strategies for addressing their practical dilemmas.

8. Case Rhetoric. We argued that both theoretical and descriptive discourse are fundamentally flawed for guiding practice. Theories communicate general principles, but their applicability in specific

cases may not be evident; while descriptions depict instances of practice, but generalizable aspects remain undisclosed. We suggested that Case Rhetoric, a combination of the two forms of discourse in which descriptions and theories mutually illuminate each other, might offer a more adequate form of discourse for guiding teachers than either one, taken singly. Investigators could productively develop methods for effectively presenting cases in guides.

9. Topics. Guides must treat, through any of the modes of discourse, the topics and issues that are critical for enactment of alternative conceptions. A framework has been presented which identifies generic topics (and possible sub-dimensions) which must be treated in a complete codification of educational practice. Investigators might productively explore, in general or for specific practices, which further dimensions or aspects of practices, either now known, or as yet not envisioned, are needed in complete codifications of educational practice.

10. Production of Guides for Practice. Finally, it is clear that the type of discourse produced in this paper, and others like it, is in essence, theoretical discourse about communication for guiding teachers. It does not directly communicate how to develop effective guides for teachers, given the complex problems confronted by authors of actual curriculum guides. Investigators and translators could productively: (a) identify and codify the variety of problems that authors of curriculum guides do confront and (b) develop guidelines based on the theoretical perspectives which we have begun to develop here, that do address writers' practical problems at the same time as they suggest ways to enhance the potential of curriculum guides to authentically guide teachers.

Clearly, the problems in communication for guiding practice that we have begun to explore, present a rich and needed set of areas for future research.

TABLE 1

TOPICS THAT SHOULD BE ADDRESSED IN CODIFICATION OF ANY EDUCATIONAL PRACTICE

I. PRINCIPLE (Ginther): Sources of motivation for involvement in activities.

A. Dynamic Schematizations

1. MOTIVATION (Lamm): Role of motivation in instruction
   Object of teachers' activities
   Ends and means of education
   Self-motivation as means and end of education
2. Sources of Motivation: INTRINSIC MOTIVATION vs. EXTRINSIC MOTIVATION (Berlak)
3. AFFECT (Westbury): Creating affect to secure complicance to the demands of the learning situation
   Trade-offs with coverage, mastery, and management

B. Static Schematizations

1. STUDENT ENTRY BEHAVIORS (Leithwood): Includes affective characteristics that influence students' interests and involvement in activities

TABLE 1 Continued

II. PURPOSE (Ginther): Aims of an endeaver.

A. Dynamic Schematizations

1. AIMS IN TEACHING (Lamm)
   - Extrinsic aims as focus
   - Extrinsic aims control intrinsic aims
   - Intrinsic aims control extrinsic aims
2. DESIRED ACHIEVEMENTS (Lamm)
   - Performing according to given models
   - Performing according to given principles
   - Discovering and testing new principles
3. SOCIAL INTERPRETATION OF INSTRUCTION (Lamm)
   - Socialization
   - Acculturation
   - Individuation
4. Purposes of schooling: DEVELOPING IN CHILDREN SHARED NORMS vs. DEVELOPING SUBGROUP CONSCIOUSNESS.
5. COVERAGE OF CONTENT (Westbury)
   - Trade-offs with mastery, affect, and management
6. MASTERY OF CONTENT (Westbury)
   - Trade-offs with coverage, affect, and management

B. Static Schematizations

1. OBJECTIVES (Leithwood): Intended outcomes of instruction, ranging from general goals to specific behaviors
2. SUBJECT-MATTER FORM (Herbert): Ordering and shaping of subject-matter in relation to cognitive processes desired, e.g., convergent thinking, divergent thinking

TABLE 1-Continued

III. CONTENT and SUBJECT-MATTER (Ginther): What is taught.

CONTENT: Theories, principles, generalizations, e.g., literary criticism.
SUBJECT-MATTER: Principles studied, e.g., a particular novel.

A. Dynamic Schematizations
   1. CONTENTS (Lamm)
      Utilitarian
      Intrinsically valuable
      Supportive of learners' capacities
   2. Views of knowledge: KNOWLEDGE AS PUBLIC vs. KNOWLEDGE AS PERSONAL DEVELOPMENT OR DISCOVERY (Berlak)

B. Static Schematizations
   1. CONTENT (Leithwood): Subject matter - specific facts, concepts, principles, generalizations, thought systems.
   2. SUBJECT-MATTER (Herbert): What is taught.

TABLE 1 -Continued

IV. METHOD (Ginther): Means by which purposes are achieved, including critical viewpoints and operational strategies.

A. Dynamic Schematizations

1. Views of the Learner

a. LEARNER (Lamm)

Homogeneous group member

Heterogeneous group member

Unique individual

b. CHILD UNIQUE vs. CHILD HAVING SHARED CHARACTERISTICS (Berlak)

c. CHILDHOOD UNIQUE vs. CHILDHOOD CONTINUOUS (Berlak)

d. WHILE CHILD vs. CHILD AS STUDENT (Berlak)

2. Views of Learning

a. LEARNING AS SOCIAL vs. LEARNING AS INDIVIDUAL (Berlak)

b. LEARNING AS MOLECULAR vs. LEARNING AS HOLISTIC (Berlak)

3. Views of Appropriate Learner's Activities

LEARNER ACTIVITY (Lamm)

Attending to teacher discourse

Teacher directed activities

Pupil directed activities

B. Static Schematizations

1. PLATFORM (Leithwood): Value systems as basis for what to include in curriculum.

2. IMPLEMENTATION REQUIREMENTS (Leithwood): Features of instructional environment required to support curriculum -- teacher knowledge and skills; organization and material resources of teacher, classroom and school.

3. TEACHING STRATEGIES (Leithwood): Patterns of teacher behavior designed to facilitate student learning.

4. INFLUENCE TECHNIQUES (Herbert): Means (social, psychological) by which teachers obtain, exercise, and delegate control over lessons.

5. LESSON FORM (Herbert): Pattern of interactions resulting from decisions about who contributes subject-matter and changes scope and sequence of what is taught.

6. LEARNING EXPERIENCES (Leithwood): Mental operations and physical acts of students in response to curriculum stimuli.

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TABLE 1 Continued

4. Views of School with respect to differential treatment, application of sanctions, and distribution of goods and resources.
   a. EQUAL ALLOCATION OF RESOURCES vs. DIFFERENTIAL ALLOCATION (Berlak)
   b. EXPECTING SELF-RELIANCE OF DISADVANTAGED vs. GIVING SPECIAL CONSIDERATION (Berlak)
   c. UNIFORM APPLICATION OF SANCTIONS vs. SELECTIVE APPLICATION (Berlak)
   d. CIVIL LIBERTIES vs. IN LOCO PARENTIS (Berlak)
5. Views of Teaching, Teaching Role, and Teaching Tasks
   a. TEACHER (Lamm)
      Employee
      Cultural Agent
      Specialist
   b. LEADERSHIP (Lamm)
      Autocratic
      Authoritative
      Permissive
   c. TEACHER MAKING LEARNING DECISIONS FOR CHILDREN vs. CHILDREN MAKING LEARNING DECISIONS (Berlak)
   d. TEACHER SETTING STANDARDS FOR GROWTH AND DEVELOPMENT vs. CHILDREN SETTING STANDARDS (Berlak)
   e. MANAGEMENT (Westbury)
      Trade-offs with coverage, mastery, and affect
7. LOCATION AND GROUPING (Herbert): Distribution and physical movement of teachers and pupils; criteria for classification of students for participation in educational activities
8. INSTRUCTIONAL MATERIALS (Leithwood): All replicable material designed to make content meaningful and
   MEDIA (Herbert): Resources used to transmit subject matter
9. ASSESSMENT TOOLS AND PROCEDURES (Leithwood): Means of sampling students to determine extent to which they have achieved purposes

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